Patent
Attorney's Docket No. 017751-017

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
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Philippe MENEI et al	)	Group Art Unit: To be assigned
	)	
Application No.: To be assigned	)	Examiner: To be assigned
	)	
Filed: December 20, 2001	)	
	)	
For: TREATMENT OF INOPERABLE TUMORS BY STEREOTACTIC INJECTION OF MICROSPHERES	)	

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to the examination of the above-identified patent application, please enter the following amendments.

IN THE ABSTRACT

Please insert the "Abstract" enclosed herewith as new page 20 of the application.

IN THE CLAIMS

Please replace claims 1-16 and 19 as follows.

1. (Amended) A method for treating a human suffering from inoperable tumors comprising administering biodegradable microspheres which release an anticancer agent by stereotactic injection directly into the tumor, into the peritumoral area or at the same time into the tumor and the peritumoral area.

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Marked-up Claims 1-16 and 19

7. (Amended) The method [Method] according to claim 1, wherein the anticancer agent [consisting of] is a radiosensitizing anticancer compound or a mixture of anticancer compounds [containing] comprising at least one radiosensitizing anticancer compound, said anticancer compound(s) being [chosen, in] selected from the group [comprising] consisting of 5-fluorouracil [(5-FU)], platinum agents, [such as carboplatin and cisplatin,] and taxanes[, such as docetaxel and paclitaxel].

8. (Amended) The method [Method] according to claim [6] 7, wherein the anticancer agent is 5-fluorouracil.

9. (Amended) The method [Method] according to claim 1, wherein said anticancer agent further comprises a neuroprotective compound [is added].

10. (Amended) The method [Method] according to claim 1, wherein the microspheres are suspended in a sterile solution containing between 1 and 1.5% by weight/volume of a viscosity modifier, between 0.5 and 1.5% of a surfactant, and between 3.5 and 4.5% of an isotonicity agent.

11. (Amended) The method [Method] according to claim [9] 10, wherein the sterile solution contains 1.25% weight/volume of the viscosity modifier.

12. (Amended) The method [Method] according to claim [9] 10, wherein the surfactant is between 0.5 and 1.5%.

13. (Amended) The method [Method] according to claim [9] 10, wherein the isotonicity agent is between 3.5 and 4.5%.

9. (Amended) The method according to claim 1, wherein said anticancer agent further comprises a neuroprotective compound.

10. (Amended) The method according to claim 1, wherein the microspheres are suspended in a sterile solution containing between 1 and 1.5% by weight/volume of a viscosity modifier, between 0.5 and 1.5% of a surfactant, and between 3.5 and 4.5% of an isotonicity agent.

11. (Amended) The method according to claim 10, wherein the sterile solution contains 1.25% weight/volume of the viscosity modifier.

12. (Amended) The method according to claim 10, wherein the surfactant is between 0.5 and 1.5%.

13. (Amended) The method according to claim 10, wherein the isotonicity agent is between 3.5 and 4.5%.

14. (Amended) The method according to claim 10, wherein the viscosity modifier is sodium carboxymethylcellulose, the surfactant is Polysorbate® and the isotonicity agent is mannitol.

15. (Amended) The method of treatment according to claim 10, wherein the suspension contains 3 ml of the sterile solution and 700 to 800 mg of biodegradable microspheres.

16. (Amended) The method of treatment according to claim 8, wherein the amount of 5 fluorouracil is between 50 and 200 mg.

19. (Amended) The method according to claim 1, wherein the microspheres are prepared by a method comprising preparing an organic phase in which the anticancer agent

and the polymer are dispersed in an organic solvent, emulsifying the organic phase and an aqueous phase, extracting the organic solvent by adding water and filtering the suspension of microspheres thus obtained.

Please add new claims 20-27 as follows:

20. (New) The method of claim 1, wherein the biodegradable microspheres are coated with a polymer which delays the release of the anticancer agent and maintains, in the parenchymal space, a therapeutically effective concentration for a period of time of at least four weeks.

21. (New) The method of claim 4, wherein inoperable tumors are craniopharyngiomas.

22. (New) The method of claim 7, wherein the anticancer agent is carboplatin or cisplatin.

23. (New) The method of claim 7, wherein the anticancer agent is docetaxes or paclitaxel.

24. (New) A method for preparing a biodegradable microsphere capable of releasing an anticancer agent comprising preparing an organic phase in which the anticancer agent and the polymer are dispersed in an organic solvent, emulsifying the organic phase and an aqueous phase, extracting the organic solvent by adding water and filtering the suspension of microspheres thus obtained.

25. (New) A method for treating a human suffering from inoperable tumors comprising administering biodegradable microspheres which release an anticancer agent by

stereotactic injection directly into the tumor, into the peritumoral area or at the same time into the tumor and the peritumoral area, wherein the biodegradable microspheres are coated with a polymer which delays the release of the anticancer agent and maintains, in the parenchymal space, a therapeutically effective concentration for a period of time of at least three weeks.

26. (New) A method for treating a human suffering from inoperable brain tumors comprising administering biodegradable microspheres which release an anticancer agent by stereotactic injection directly into the tumor, into the peritumoral area or at the same time into the tumor and the peritumoral area, wherein the biodegradable microspheres are coated with a polymer which delays the release of the anticancer agent and maintains, in the parenchymal space, a therapeutically effective concentration for a period of time of at least three weeks, and wherein said anticancer compound is selected from the group consisting of 5-fluorouracil (5-FU), platinum agents, and taxanes.

27. (New) A method for treating a human suffering from inoperable brain tumors comprising

administering biodegradable microspheres which release an anticancer agent by stereotactic injection directly into the tumor, into the peritumoral area or at the same time into the tumor and the peritumoral area, wherein the biodegradable microspheres are coated with a polymer which delays the release of the anticancer agent and maintains, in the parenchymal space, a therapeutically effective concentration for a period of time of at least three weeks, and wherein said anticancer compound is selected from the group consisting of 5-fluorouracil (5-FU), platinum agents, and taxanes,

and administering radiotherapy to said human.

REMARKS

Prior to examination of the above-identified application, entry of the foregoing, and consideration of the above amendments are respectfully requested.

Claims 1-16 and 19 have been amended. New claims 20-27 have been added directed to preferred embodiments of the invention. It is respectfully submitted that no new matter has been added by the above amendments.

In the event that there are any questions relating to this Preliminary Amendment, or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney at 508-339-3684 concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: R Danny Huntington

R. Danny Huntington
Registration No. 27,903

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

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Marked-up Claims 1-16 and 19

1. (Amended) A method for treating a human suffering from inoperable tumors [wherein] comprising administering biodegradable microspheres [releasing] which release an anticancer agent [are administered] by stereotactic injection directly into the tumor, into the peritumoral area or at the same time into the tumor and the peritumoral area.

2. (Amended) The method of claim 1, wherein the biodegradable microspheres are coated with a polymer which delays the release of the anticancer agent and maintains, in the parenchymal space, a therapeutically effective concentration for a period of time of at least three weeks[, preferably of at least four weeks].

3. (Amended) The method of claim 1, wherein the inoperable tumors are deep tumors or tumors which are located [into] in functional zones.

4. (Amended) The method of claim [2] 3, wherein inoperable tumors are brain tumors [such as] selected from the group consisting of glioblastomas, tumors of otorhinolaryngologic sphere, rectal tumors, osseous, hepatic or brain metastasis, [or] and non malignant cystic tumors [like craniopharyngiomas].

5. (Amended) The method [Method] according to claim 3, wherein the tumor is a brain tumor.

6. (Amended) The method [Method] according to claim [4] 5, wherein the brain tumor is [one of] selected from the group consisting of glioblastomas, metastasis and non malignant cystic tumors [like craniopharyngiomas].

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Marked-up Claims 1-16 and 19

7. (Amended) The method [Method] according to claim 1, wherein the anticancer agent [consisting of] is a radiosensitizing anticancer compound or a mixture of anticancer compounds [containing] comprising at least one radiosensitizing anticancer compound, said anticancer compound(s) being [chosen, in] selected from the group [comprising] consisting of 5-fluorouracil [(5-FU)], platinum agents, [such as carboplatin and cisplatin,] and taxanes[, such as docetaxel and paclitaxel].

8. (Amended) The method [Method] according to claim [6] 7, wherein the anticancer agent is 5-fluorouracil.

9. (Amended) The method [Method] according to claim 1, wherein said anticancer agent further comprises a neuroprotective compound [is added].

10. (Amended) The method [Method] according to claim 1, wherein the microspheres are suspended in a sterile solution containing between 1 and 1.5% by weight/volume of a viscosity modifier, between 0.5 and 1.5% of a surfactant, and between 3.5 and 4.5% of an isotonicity agent.

11. (Amended) The method [Method] according to claim [9] 10, wherein the sterile solution contains 1.25% weight/volume of the viscosity modifier.

12. (Amended) The method [Method] according to claim [9] 10, wherein the surfactant is between 0.5 and 1.5%.

13. (Amended) The method [Method] according to claim [9] 10, wherein the isotonicity agent is between 3.5 and 4.5%.

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Marked-up Claims 1-16 and 19

14. (Amended) The method [Method] according to claim [9] 10, wherein the viscosity modifier is sodium carboxymethylcellulose, the surfactant is Polysorbate® and the isotonicity agent is mannitol.

15. (Amended) The method [Method] of treatment according to claim [9] 10, wherein the suspension contains 3 ml of the sterile solution and 700 to 800 mg of biodegradable microspheres.

16. (Amended) The method [Method] of treatment according to claim [7] 8, wherein the amount of [5-FU] 5 fluorouracil is [of] between 50 and 200 mg.

19. (Amended) The method [Method] according to claim 1, wherein the microspheres are prepared by a method [consisting in] comprising preparing an organic phase in which the anticancer agent and the polymer are dispersed in an organic solvent, emulsifying the organic phase and an aqueous phase, extracting the organic solvent by adding water and [finally] filtering the suspension of microspheres thus obtained.